

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. *(Previously Presented)* A method of locating a potential source of fluid leakage in a fluid container for containing fluid includes the steps of:

- (i) determining a datum vacuum value by circumferentially sealing a vacuum tight cover to a joint free and seam free surface of the fluid container;
- (ii) removing the air between the cover and the surface of the container;
- (iii) recording the maximum consistent vacuum achieved as the datum vacuum value;
- (iv) circumferentially sealing a vacuum tight cover to a surface of the empty fluid container over a suspected source of fluid leak to form a bagged region of said surface;
- (v) removing the air between the cover and said bagged region of the surface;
- (vi) measuring the vacuum between the cover and said bagged region of the surface;
- (vii) comparing the measured vacuum with said datum vacuum value, and, where the measured vacuum is less than the datum vacuum;
  - (a) gaining physical access to the interior of the fluid container;
  - (b) using a leak detector to check suspect areas from the inside of said fluid container; and,
  - (c) recording the exact location of the source of fluid leaks.

2. *(Cancelled)*

3. (*Currently Amended*) A method of locating a potential source of fluid leakage in a fluid container for containing fluid including the steps of:

- (i) circumferentially sealing a vacuum tight cover to a surface of the empty fluid container over a suspected source of fluid leak to form a bagged region of said surface;
  - (ii) removing the air between the cover and said bagged region of the surface;
  - (iii) measuring the vacuum between the cover and said bagged region of the surface;
  - (iv) measuring the vacuum between the cover and said bagged region of the surface of the container over a predetermined period of time; and
  - (v) comparing a drop in measured vacuum with a predetermined acceptable drop in the datum vacuum value over the same predetermined time;
  - (vi) gaining physical access to the interior of the fluid container;
  - (vii) using a leak detector to check suspect areas from the inside of said fluid container;
- and,
- (viii) recording the exact location of the source of fluid leaks.

4. (*Previously Presented*) A method of locating a potential source of fluid leakage in a fluid container as claimed in claim 1 and further including the step of using a leak detector to detect air leakage from said bagged region of the surface after the step of removing the air between the cover and the surface and if air leakage is detected appropriately repairing the cover or its seal to the surface.

5. *(Previously Presented)* A method of locating a potential source of fluid leakage in a fluid container as claimed in claim 1 and wherein the leak detector used is an ultrasonic leak detector.

6. *(Previously Presented)* A method of locating a potential source of fluid leakage in a fluid container as claimed in claim 1 and, where a potential source of leakage is located, including the further steps of:

repairing the source;

repeating the method and repairing any further sources found; and

filling the container with fluid and monitoring it for fluid leaks.

7. *(Previously Presented)* A method of locating a potential source of fuel leakage in an aircraft fuel tank including the steps of:

applying a bagging film to a surface of the empty fuel tank over a suspected source area or areas of fuel leak;

removing the air between the bagging film and the surface;

measuring the vacuum between the bagging film and the surface;

comparing the measured vacuum with a predetermined acceptable datum vacuum value;

and, where the measured vacuum exceeds the datum vacuum;

gaining physical access to the interior of the aircraft fuel tank;

using a leak detector to check suspected leakage source area from the inside of said aircraft fuel tank; and,

recording the exact location of the source of fuel leaks for subsequent repair.

8. (*Cancelled*)

9. (*Currently Amended*) A method of locating a potential source of fluid leakage in a fluid container for containing fluid including the steps of:

- (i) circumferentially sealing a vacuum tight cover to a joint free and seam free surface of the fluid container;
- (ii) removing the air between the cover and said surface;
- (iii) measuring the change in vacuum for a predetermined period of time;
- (iv) circumferentially sealing a vacuum tight cover to a surface of the empty fluid container over a suspected source of fluid leak to form a bagged region of said surface;
- (v) removing the air between the cover and said bagged region of the surface;
- (vi) measuring the change in vacuum between the cover and said bagged region of the surface of the container over said predetermined period of time;
- (vii) comparing the measured change in vacuum at said bagged region with the measured change in vacuum at said joint free and seam free surface, and, if the change in vacuum at said bagged region is greater than the change in ~~vacuum~~vacuum at said joint free and seam free surface,
  - (a) gaining physical access to the interior of the fluid container;
  - (b) using a leak detector to check suspect areas from the inside of said fluid container;and,
  - (c) recording the exact location of the source of fluid leaks.